

Engineering
Biomedical Engineering

Study Program : Bachelor
Study Plan Type : Major
Academic Year : 2022

The requirements to obtain a Bachelor degree is :-

*** The minimum requirements to get a Bachelor degree in / Biomedical Engineering / is to pass 160 credit hours, according to this study plan.**

*** The credit hours are distributed to get a Bachelor degree as follows :-**

Number of credit hours	
University Requirements	24.000
Compulsory	18.000
Elective	6.000
Faculty Requirements	33.000
Compulsory	33.000
Specialization Requirments	103.000
Compulsory	91.000
Elective	12.000
Pre-requist Courses	0.000
	0.000
Total :	160.000

University Requirements Credit Hours : 24
Requirement type : Compulsory Credit Hours :18

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
2116011101	Arabic Communication Skills	3.000	3.000	0.000	121601099	online learning
2116021101	English Communication Skills	3.000	3.000	0.000	121602099	online learning
2214041117	Military Science	3.000	3.000			online learning
1714041118	National Education	3.000	3.000	0.000		online learning
2114041123	Leadership and Social Responsibility	2.000	2.000	0.000		online learning
2114041124	Entrepreneurship and Innovation	2.000	2.000	0.000		online learning
2114041125	Life Skills	2.000	2.000	0.000		online learning

University Requirements Credit Hours : 24
Requirement type : Elective Credit Hours :6

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
1804001128	Cyber Hygiene	3.000	3.000	0.000	110108099	in class
2210031100	digital culture	3.000	3.000	0.000		
1916033201	Italian Language (2)	3.000	3.000	0.000	1716031101	in class
1916034101	Russian Language (1)	3.000	3.000	0.000		online learning
1916034102	Russian Language (2)	3.000	3.000	0.000		
1916034201	Japanese (2)	3.000	3.000	0.000	1716031102	in class
1916035101	Turkish Language (1)	3.000	3.000	0.000		in class
1916036101	Korean Language (1)	3.000	3.000	0.000		in class
1916036102	Korean Language(2)	3.000	3.000	0.000	1916036101	
1916037101	German Language (1)	3.000	3.000	0.000		in class
1916038101	Chinese Language (1)	3.000	3.000			online learning
1916039101	Polish Language (1)	3.000	3.000	0.000		in class
1714041101	University Life of Student	3.000	3.000			online learning
1714041102	Introduction to Psychcology	3.000	3.000			online learning
1714041104	Family and Child Education	3.000	3.000			online learning
1714041107	Citizenship and Human Rights	3.000	3.000			in class
1714041110	Islam Current Issues	3.000	3.000			in class
1714041111	Islamic Thought	3.000	3.000			online learning
1714041112	Jerusalem : Histroy and Civilization	3.000	3.000			in class
1714041113	Citizenship and Human Rights	3.000	3.000	0.000		online learning
1714041114	Histroy and Civilization of Jordan	3.000	3.000			online learning
1714041115	Sociology	3.000	3.000			in class
1714041116	Archaeology and Tourism	3.000	3.000			online learning
1714041120	Economic and Management Science	3.000	3.000			

University Requirements Credit Hours : 24
Requirement type : Elective Credit Hours :6

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
1714041121	Law and Ordering of Our Life	3.000	3.000			online learning
1714041122	Principles of Sign Language	3.000	3.000			in class
1714041126	Humanistic Moral and Values Education	3.000	3.000			online learning
1714041127	Conflict Resolution and Accept Others	3.000	3.000			online learning
1714041128	Culutural Heritage in Jordan	3.000	3.000			
1914041130	Integrity Transperancy and anti - Corruption	3.000	3.000	0.000		online learning
1714041193	Palestinian Cause	3.000	3.000			in class
1714041194	Arabic Language and Current Issues	3.000	3.000			online learning
1814041195	Disability and Healthy Community	3.000	3.000			online learning
1814041197	Selected Topics in National Trends	3.000	3.000			
1814041198	Education for Sustainable Development	3.000	3.000			online learning
1814041199	Adjustment and Mental Health	3.000	3.000			online learning
1814041200	Introduction to Education	3.000	3.000			online learning
1914042111	Media Education	3.000	3.000	0.000		online learning
2101081139	Physical Culture	3.000	3.000	0.000		online learning
2201081140	Development and Environment	3.000	3.000	0.000		online learning
0110108104	Energy and its Sources	3.000	3.000	0.000		online learning
0110108113	Biotechnology and Society	3.000	3.000	0.000		online learning
0110108114	Automobile Essentials	3.000	3.000	0.000		
0110108115	Computer Ethics	3.000	3.000	0.000		blended learning
0110108130	Health and Nutrients	3.000	3.000	0.000		online learning
0110108131	Health Education and First Aid	3.000	3.000	0.000		online learning
0110108132	Sport and Health	3.000	3.000	0.000		online learning

University Requirements Credit Hours : 24
Requirement type : Elective Credit Hours :6

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0140108134	Ethics in Natural Science	3.000	3.000	0.000		online learning
0170108135	Reproductive Health	3.000	3.000	0.000		online learning
0140108166	Pharmaceutical Edification	3.000	3.000	0.000		
0121601105	Applied Arabic Language	3.000	3.000			in class
0121602102	Applied English Language	3.000	3.000	0.000		blended learning
0121602103	Technical Translation	3.000	3.000	0.000		blended learning
0141603101	Italian Language	3.000	3.000			in class
0151603102	Japanese Language (Level 1)	3.000	3.000	0.000		in class
0121603201	Spanish Language (1)	3.000	3.000			blended learning

Faculty Requirements Credit Hours : 33
Requirement type : Compulsory Credit Hours :33

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0110101102	Calculus (2)	3.000	3.000	0.000	110108101	blended learning
0110101201	Calculus (3)	3.000	3.000	0.000	110101102	in class
0110101203	Ordinary Differential Equations (1)	3.000	3.000	0.000	110101102	in class
0110102101	General Physics (1)	3.000	3.000	0.000		
0110102102	General Physics (2)	3.000	3.000	0.000	1701081136	in class
0110102103	General Physics Laboratory (1)	1.000	0.000	3.000	1701081136 synchronous	in class
0110103107	Basics of General Chemistry	3.000	3.000	0.000		
0110103108	Basics of General Chemistry Laboratory	1.000	0.000	3.000	110103107 synchronous OR 1701081137 synchronous	in class
0110108101	Calculus (1)	3.000	3.000	0.000		online learning
0110400101	Engineering Workshop	1.000	0.500	2.000		blended learning
0110400102	Computer Programming	3.000	3.000	0.000	110108099	in class
0110400201	Manual Engineering Drawing	2.000	1.000	3.000		in class
0110400202	Computer Aided Engineering Drawing	1.000	0.000	3.000	110400201	in class
0110400203	Ethics and Communication Skills	3.000	3.000	0.000	111405110 OR 121602101	blended learning

Specialization Requirments Credit Hours : 103
Requirement type : Compulsory Credit Hours :91

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
1704001303	Numerical Analysis	3.000	3.000	0.000	(110101203) AND (110400102 OR 110108112)	in class
2104031302	Engineering Economy	2.000	2.000	0.000	110101102	online learning
2104061420	Biomedical Instrumentation (2)	3.000	3.000	0.000	110406321 AND 110406311	in class
2104061423	Biomedical Transducers & Telemetry	3.000	3.000	0.000	(110406321 AND 110406370) AND 160406360	in class
2004061450	Practical Training	3.000	0.000	0.000	110400203	in class
2104061471	Medical Imaging Lab	1.000	0.000	3.000	110406470	in class
2104061591	Graduation Project (1)	1.000	0.000	3.000	2104031302	in class
2104061592	Graduation Project (2)	2.000	0.000	6.000	2104061591	in class
1704081433	Microprocessors and Embedded Systems	3.000	3.000	0.000	(110108112 OR 110400102) AND 110408220	in class
0110108105	General Biology (1)	3.000	3.000	0.000		in class
0110405331	Automatic Control	3.000	3.000	0.000	110101203	in class
0110406210	Biomechanics (1)	3.000	3.000	0.000	110102101	in class
0110406260	Applied Mathematics	3.000	3.000	0.000	110101203	in class
0110406310	Biomaterials	3.000	3.000	0.000	110103107 OR 1701081137	in class
0110406311	Bio- Fluids	3.000	3.000	0.000	110406260 AND 110406210	in class
0110406320	Biomedical Electronics	3.000	3.000	0.000	110409240	in class
0110406321	Biomedical Instrumentation (1)	3.000	3.000	0.000	110406320 AND 110501222	in class
0160406360	Biostatistics	3.000	3.000	0.000	110406260	in class
0110406370	Signal & System Analysis for biomedical engineering	3.000	3.000	0.000	110406260	in class
0110406421	Biomedical Instrumentation Lab (1)	1.000	0.000	3.000	110406321 AND 110409342	in class
0110406422	Biomedical Instrumentation Lab (2)	1.000	0.000	3.000	110406421 AND 110406420 synchronous	in class
0110406424	Biomedical Transducers & Telemetry Lab.	1.000	0.000	3.000	110406423	in class

Specialization Requirments Credit Hours : 103
Requirement type : Compulsory Credit Hours :91

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0110406430	Artifitial Organs & Prosthetics	3.000	3.000	0.000	110406321 AND 110406310	in class
0110406470	Medical Imaging	3.000	3.000	0.000	110406321	in class
0110406530	Rehabilitation Engineering	3.000	3.000	0.000	110406210 AND 110406423	online learning
0110406531	Biomechanics & Rehabilitation Engineering Lab	1.000	0.000	3.000	110406530 AND 110406310	
0110406570	Medical Digital Image Processing	3.000	2.000	3.000	110409422	online learning
0110408220	Digital Logic	3.000	3.000	0.000	110101102 OR 110101152	in class
0110408434	Digital Logic and Microprocessors Lab	1.000	0.000	3.000	110408433	in class
0110409201	Electrical Circuits (1)	3.000	3.000	0.000	110101102 AND 110102102	in class
0110409203	Electrical Circuits (2)	3.000	3.000	0.000	110409201	in class
0110409240	Electronics (1)	3.000	3.000	0.000	110409201 OR 110406229	in class
0110409300	Electrical Circuits Lab	1.000	0.000	3.000	(110102103) AND (110409203 OR 110406229)	in class
0110409342	Electronics Lab	1.000	0.000	3.000	(110409341 OR 110406320) AND (110409300 OR 110409260)	in class
0110409343	Digital Electronics	3.000	3.000	0.000	110408220 AND 110409240	in class
0110409422	Digital Signal Processing	3.000	3.000	0.000	110406370 OR 110409322	in class
0110501222	Human Physiology	3.000	3.000		110104101	

Specialization Requirments Credit Hours : 103
Requirement type : Elective Credit Hours :12

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
2104061411	Cardiovascular Mechanics	3.000	3.000	0.000	(110406210 AND 110501222) AND 110406311	in class
0110406410	Biomechanics (2)	3.000	3.000	0.000	110406210	
0110406425	Bio-Electromagnetism	3.000	3.000	0.000	110409203 AND 110406260	in class
0110406440	Modeling & Simulation of Biomedical Systems	3.000	3.000	0.000	(110406260) AND (110108112 OR 110400102)	
0110406510	Biomaterials Design & Characterization	3.000	3.000	0.000	110406310	
0110406511	Fundamentals of Micro/Nanotechnologies in Biomedical Engineering	3.000	3.000	0.000	110406310 AND 110104101	in class
0110406520	Robotics Surgery	3.000	3.000	0.000	110406420 AND 110406423	
0110406521	Therapeutic Ultrasound	3.000	3.000	0.000	110406470	online learning
0110406532	Fundamentals of Tissue Engineering	3.000	3.000	0.000	110406310 AND 110104101	in class
0110406593	Fundamentals of Medical Devices Design & Development	3.000	3.000	0.000	110406420	in class
0110406594	Special Topics in Biomedical Engineering	3.000	3.000	0.000		in class
0110406595	Clinical Engineering	3.000	3.000	0.000	110406310	

Courses - Not Allowed To Study Credit Hours : 0
Requirement type : Credit Hours :0

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0110108112	Computer Programming	3.000	3.000	0.000	(1001103 AND 1001104) OR (110108099 OR 1011100)	blended learning

Pre-Requist Courses Credit Hours : 0
Requirement type : Credit Hours :0

Course Number	Course Name	Credit Hours	Theoretical	Practical	Pre - Requisite	Cours e Type
0001001096	Computer Skills Test	0.000	0.000	0.000		in class
0110108099	Computer Skills/ Prerequisite	3.000	3.000	0.000	1001096	online learning
0002110096	Arabic Placement Test	0.000	0.000	0.000		in class
0002120096	English Placement Test	0.000	0.000	0.000		in class
0111405098	Arabic Language / Pre-requisite	3.000	3.000	0.000	2110096	
0111405099	English Language/ pre-requisite	3.000	3.000	0.000	2120096	

free study materials are (3) credit hours, The student chooses it from any of the courses offered by the university departments.